

# **ENVIRONMENTAL ASSESSMENT**

JUNE 2002



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## **Moose Visitor Center and Area Plan**

Grand Teton National Park  
Wyoming



**U.S. Department of the Interior  
National Park Service  
  
Environmental Assessment  
Moose Visitor Center and Area Plan  
  
Grand Teton National Park  
Teton County, Moose, Wyoming**

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**SUMMARY**

The National Park Service proposes to replace the existing visitor center and administration building at Moose Village within Grand Teton National Park by constructing a new visitor center and separate administration building nearby. The existing facility, which contains both the visitor center and park administrative offices, is of inadequate size to serve the needs of either park visitors or employees. In addition, Grand Teton National Park is located within an area of significant seismic activity and the building does not meet current seismic safety standards. The new visitor center would be located approximately 500 feet southeast of the existing post office and would occupy approximately 25,000 square feet, while the administration building would be replaced with a new structure not exceeding 20,000 square feet adjacent to the existing building. Parking for the new visitor center would remain on the north side of the Teton Park Road, with the existing parking being expanded from 2.5 acres to approximately 4 acres in size. Access to the new visitor center would be via a footpath approximately 1,000 feet in length that would pass underneath the Teton Park Road and through woodland and sagebrush areas. A small parking lot and access road on the south side of the Teton Park Road would provide access for handicapped visitors and would serve as the primary parking lot during the winter. To improve pedestrian travel, a spur trail would be constructed to Menor's Ferry and The Chapel of the Transfiguration. A year-round bike and pedestrian pathway would also be constructed adjacent to the road corridor from the Moose housing area and the administrative complex to the new visitor center. The boat parking area north of the maintenance building would be expanded and reconfigured, and boat parking would be eliminated from the east side of the current parking lot. To address circulation concerns, all access to the boat launch and boat-parking area would be through the west entrance to the main parking lot/administrative area.

The proposed action would not analyze the interior design of park facilities and interpretive exhibits. It would have no impacts on prime and unique agricultural lands, wetlands, Wilderness, wild and scenic rivers, cultural landscapes, or minority and low income populations. Impacts to air quality would be adverse, but minor and short-term. Water resources would be subject to negligible to moderate adverse effects related to construction activities. A portion of floodplains would be subject to a beneficial effect, due to the relocation of "Critical Actions" outside the regulatory floodplain. Adverse impacts to soil resources would be minor and of a short-term nature. Impacts to vegetation would be of a minor and adverse, long-term nature. Impacts to wildlife would be minor and adverse for sage grouse. Negligible short-term adverse impacts would affect grizzly bears, gray wolves, and lynx. There would be long-term direct negligible and adverse impacts on these species due to their avoidance of human developments. The proposed action would have moderate beneficial improvements to visitor and employee safety. The impacts to visitor services are moderate and beneficial. Sound from aircraft would continue to cause minor to moderate adverse effects on visitors at the visitor center. Impacts on visual resources would be minor and adverse. Effects

to cultural resources could vary depending upon National Register eligibility of archeological sites. Short-term economic benefits would result from construction related expenditures. The short-term impact of the proposed action on adjacent lands would be minor and short-term. The proposed action would create long-term, minor adverse impacts on landowners that use the Teton Park Road to access their property on the Moose-Wilson Road.

**Note to Reviewers and Respondents**

If you wish to comment on the environmental assessment/assessment of effect, you may mail comments to the name and address below. Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the record, which we will honor to the extent allowable by law. **If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment.** We will make all submissions from organizations, businesses and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Please address comments to:  
Stephen P. Martin, Superintendent  
Grand Teton National Park  
PO Drawer 170  
Moose, WY 83012

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# MOOSE VISITOR CENTER AND AREA PLAN ENVIRONMENTAL ASSESSMENT

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## INTRODUCTION

The Grand Teton National Park headquarters building located in Moose, Wyoming is primarily an administrative facility and secondarily, a park interpretive facility. In 1961, the year the current building opened, approximately 1,492,434 visitors came to Grand Teton National Park. In 2000, 3,942,099 visitors entered the park, an increase of 164%. Visitation has increased successively in seven of the past 10 years.

In November 2000, Grand Teton National Park (GTNP) initiated the environmental assessment (EA) process to select an appropriate location for a new visitor center and associated facilities. This EA describes the environmental effects of the proposal to replace the existing administrative and visitor center facilities in Moose, as well as alternatives to it.

## Purpose of and Need for Action

The handbook to Director's Order #12 (NPS-12, January 2001) defines "purpose" as a "statement of the goals and objectives that NPS intends to fulfill by taking action." Identifying the legal framework is the initial step in stating the purpose. For a project such as this, suitable goals and objectives are found in the general management plan (GMP) of a park. Lacking a GMP, park units must examine overall NPS mandates and policies, while considering any other park-specific guidance that may provide legal direction.

### Legal and Policy Framework

The legal framework for this analysis is defined by Grand Teton National Park's enabling legislation (64 Stat. 849, 1950). The enabling legislation establishes Grand Teton as a unit of the national park system to "*protect the scenic and geologic values of the Teton Range and Jackson Hole and to perpetuate the indigenous plant and animal life.*" Other laws and regulations circumscribe proposals that meet this purpose and need for action. These include most notably the Organic Act, Endangered Species Act, Clean Water Act, and the National Historic Preservation Act. Additional references to the legal and policy framework that guided this document are found in Appendix D.

## Purpose

The legal, policy and planning framework outlined above forms the basis for the specific purposes of the proposal. Generally, the purpose of the proposed visitor center and Moose area plan is to improve visitor education and enjoyment, improve visitor services, improve vehicle and pedestrian circulation and visitor and employee safety, protect or enhance wildlife habitat, and improve visual quality of the Moose area. This project is included in the State of Wyoming State Transportation Improvement Plan (STIP) with the intent to provide new facilities, exhibits, transit center and parking.

A successful alternative will do the following:

- Provide education and learning
- Improve resource conditions through understanding
- Provide high quality park orientation and information to park visitors
- Provide safe park facilities for visitors and employees that comply with seismic standards
- Provide safe, clear, user-friendly pedestrian and vehicle circulation and parking for employees and visitors

- Provide mass transportation
- Preserve the dramatic scene of the Teton Range and the piedmont lakes
- Provide opportunities for visitor interaction with the natural environment compatible with the resources of the park
- Demonstrate sustainable design practices
- Make possible cost-effective operations in the future
- Blend architecturally with the surrounding landscape
- Maintain or enhance the integrity of natural resource values such as wildlife migration routes, wildlife habitat (including threatened and endangered species), plants, water and air quality, visual quality and cultural resources
- Minimize new ground disturbance

## **Need for Action**

The need for the project is outlined in the following statements:

- Space in the existing visitor center is inadequate. The center opened in 1961 when annual park visitation was 1,492,434. Visitation is currently 3,942,099, an increase of 164%.
- The existing administration and visitor center building is in an area of high seismic activity and is structurally deficient to withstand a major earthquake.
- Circulation in and around the visitor center is confusing for park visitors. Boating enthusiasts, maintenance, administrative, residential and law enforcement personnel all use the same access and egress. Parking is inadequate for some uses and more than adequate for others.
- The existing administration building is inadequate for staff use.

## **PROPOSED ACTION**

The National Park Service (NPS) proposes to replace the visitor center and administrative building, near Moose, Wyoming and to address related issues of circulation and visual quality within the Moose Village area. The proposed action (see Figure 5, page 27) and no-action alternative (see Figure 2, page 19) that are evaluated in this document were developed with consideration of issues raised during public scoping, NPS management policies, legislative mandates and approved park planning documents. This proposed action, in analysis, became Alternative D, the preferred alternative. See Alternative D on page 27 for details.

## **Description of the Study Area**

Moose, Wyoming (Figure 1, page 4) is located in Grand Teton National Park at the intersection of the southern terminus of the Grand Teton Park Road and US Highway 191, 14 miles north of Jackson, Wyoming. The Moose development includes employee housing, visitor service facilities, administrative facilities, a post office, and the Moose Village Store. All land is federally owned, except Moose Enterprises, Inc. and The Chapel of the Transfiguration. The 4 Lazy F Ranch is a private lifetime lease.

## **Connected Actions**

Actions or facilities that are connected with the proposed new visitor center include visitor and employee parking areas, boat parking, bank stabilization, the Moose-Wilson Road junction, the Moose entrance station, The Murie Center, park headquarters and administration offices, access to the maintenance and housing areas and the location of the post office and the Moose Village Store.

The transportation plan for Grand Teton National Park is in its initial phase. Included in the area of analysis for this planning effort is the village of Moose. While the analysis presented in the Moose visitor center and area plan EA considers parking and facilities for mass transit, it does so in order that any decision that is made as a result of the transportation plan will not be limited in scope by any decision produced as a result of this EA.

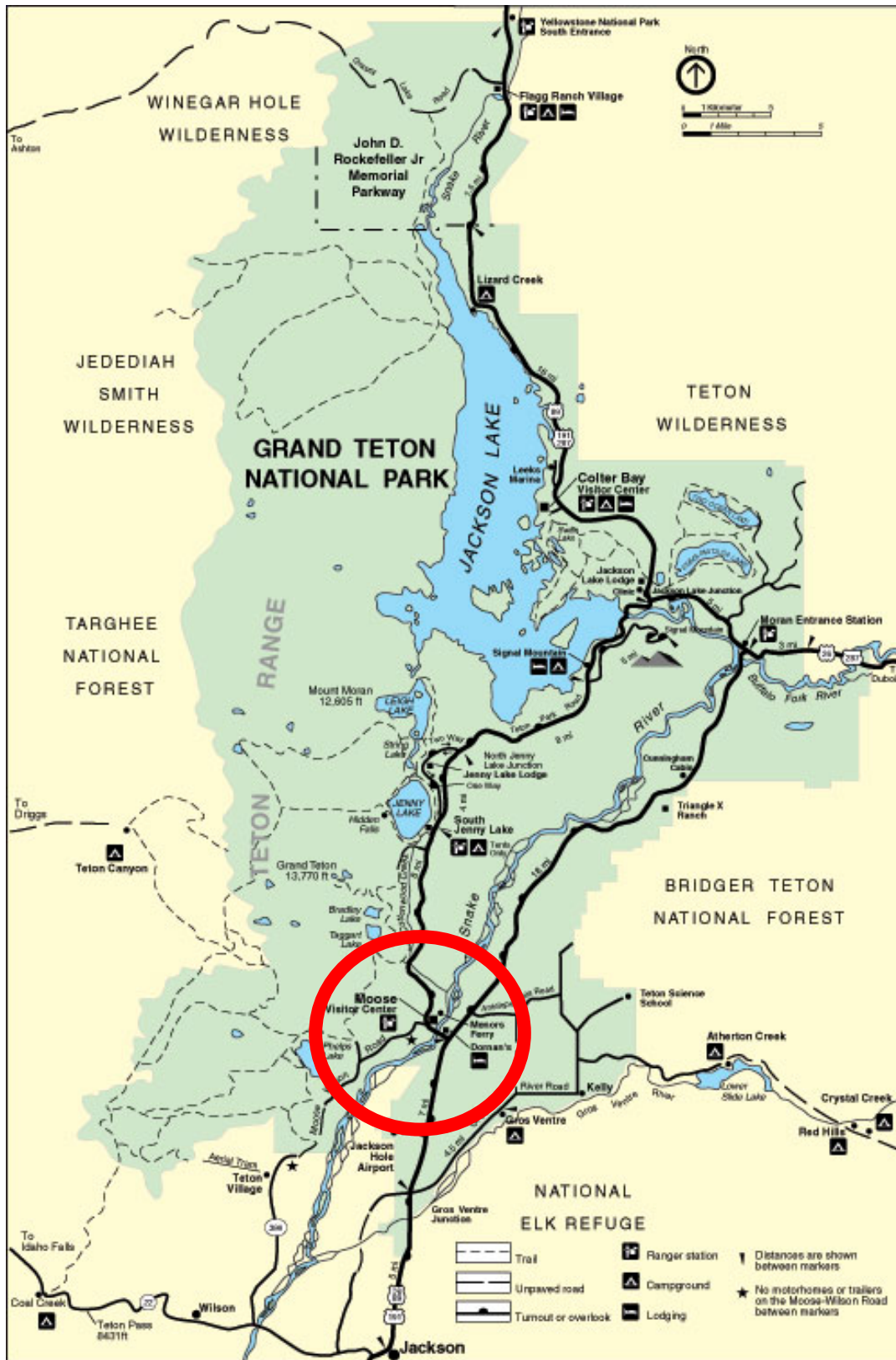
## **Scope of the Analysis**

The scope of analysis is to be site-specific. It will incorporate consideration of all facilities and systems relating to the proposed visitor center, administrative buildings and the affected area within the vicinity of Moose, Wyoming. The scope will also include any affected vehicle and pedestrian circulation, roadways and facilities. The environmental, cultural, economic and social effects of each alternative location will be analyzed. This analysis will serve as the basis for the decision to be made.

## **The Decision to be Made**

The decision for the most appropriate location for the proposed visitor center and associated facilities will be made by the Intermountain Regional Director. The decision will not address interpretive subjects nor will it include specific functional issues within the building itself. The decision will address the size of the development relative to the amount of ground disturbance that is expected. The decision will also address the location of the visitor center building, administrative buildings and all associated and connected facilities such as restrooms, parking, vehicle and pedestrian circulation, utilities, roadways and facility access and egress.

Figure 1 Area Map



## **Scoping and Public Involvement**

Scoping is a process that identifies the significant issues relating to a proposed action, and provides a basis for developing alternatives. In November of 2000, Grand Teton National Park began the public scoping process to initiate an environmental assessment for a new park visitor center. The scoping period began on November 5, 2000 and ended on December 15, 2000. Interested members of the public participated in this process by attending either one of two public meetings, or by sharing their comments or concerns via the telephone or through the mail.

On November 2, public scoping notices were mailed to approximately 150 interested members of the public and federal and state agencies. The scoping notice asked the public to help the park define the scope of the project and the range of alternatives appropriate to address the purpose of the project. The park also requested that respondents identify the potential effects of the proposal and help develop mitigation techniques.

The public was invited to participate in a meeting at the Old Wilson School on November 8, 2000 at 7 p.m. or a meeting at Snow King Resort in the Town of Jackson on November 13, 2000 at 7 p.m. Forty-seven members of the community participated in the meetings, 24 in Wilson and 23 in Jackson.

Over the next 40 days, 88 letters and 3 telephone comments were received. Commentors resided primarily in Jackson Hole, Wyoming and Teton Valley, Idaho, although comment letters arrived from Utah, New York, and Canada. Of the 88 letters received, 68 were form letters; these 68 form letters were of a single type. A summary of comments was subsequently written and distributed to all that commented (Appendix A).

### **Alternatives Newsletter and Public Meeting**

Once an initial range of alternatives was developed, interested members of the public were asked again to provide comment. A newsletter that outlined the draft range of alternatives was mailed to over 300 persons. Approximately 40 letters, e-mails and telephone calls were received over this 30-day comment period. A summary of comments from the newsletter and from public meetings is found in Appendix B.

### **Summary of Public Scoping**

Summarized below are the comments and considerations raised during both opportunities for public comment. This list also includes concerns raised during internal NPS scoping meetings. Appendix C also lists names and addresses of commentors.

- The highest priority in evaluating site locations should be minimizing environmental impacts to the resources of the park.
- Locate the new visitor center at a site where the land has already been disturbed and there is existing infrastructure. The clustering of buildings should be considered.
- Alternatives should minimize the potential for wildlife displacement and noxious weed dispersal and adverse impacts to threatened and endangered species and visual quality.
- The visibility of the visitor center from the highway is a concern. The visitor center should be located so it does not negatively affect views in the park.
- Address safety concerns such as vehicle and pedestrian circulation, parking congestion and earthquake safety. The building must be large enough to provide park visitors with recreational information, permits, park orientation, trip planning and registration.
- The building should be located so that low energy and sustainable design standards are easily incorporated. The building size should accommodate the needs of the future, but should not be too large.

- The planning process should address related planning issues in the Moose area such as the Grand Teton Transportation Study, the Murie Ranch, the Moose-Wilson Road and the Moose entrance station, the location of administrative facilities and employee and visitor parking.
- The existing building is structurally deficient and located in an area of high seismic activity. Life safety risks to the occupants are a primary concern.
- More space is needed to accommodate the increasing number of visitors to the park and the visitor center. The space currently assigned to trip planning, permits, and orientation functions is inadequate.
- Circulation in and around the visitor center is confusing for park visitors. Boating enthusiasts, maintenance and law enforcement personnel all use the same access and egress to the parking area. Parking is inadequate for some uses and more than adequate for others.
- The exhibits in the visitor center are currently insufficient to interpret the primary interpretive themes of the park.
- Space for the Grand Teton Natural History Association bookstore is inadequate.
- Any alternative considered should limit development in floodplains and important wildlife habitat.

## ISSUES

The NPS has addressed all comments received in one of two ways: 1) they are analyzed in detail through the development of an alternative or as a possible impact; or 2) they are not analyzed further and the reader is provided with a rationale for their dismissal. The NPS has classified comments in categories called *impact topics*. Impact topics are concerns to be addressed in detail based on their relevance to the decision to be made. The following section, *Impact Topics*, describes in detail those comment categories considered relevant. The section titled *Impact Topics and Issues not Addressed* describes specific types of comments not carried forward for in-depth analysis and provides a rationale for their dismissal.

### Impact Topics

This section summarizes the major issues that relate to the proposed action and alternatives to it. While common concerns exist among the alternatives, they are categorized for purposes of analysis and alternative formulation. Because the decision regarding Moose area facilities is site-specific, relevant issues are those that bear on 1) facility locations that might be necessary to address existing circumstances or 2) the effects of the facilities on the human or natural environment.

Sufficient detail must be included in the environmental assessment to afford a conclusion in the decision notice about the significance of the impact in context and intensity. An issue is defined as a point of contention about the specific environmental effects of a specific management action or program. The following impact topics were selected for detailed in-depth analysis based on substantive issues raised during scoping and review of environmental statutes, regulations, executive orders and NPS *Management Policies* (NPS 2001).

#### Visitor Experience

Providing for the enjoyment of national park resources is one of the foundations of the Organic Act. The construction of new visitor service facilities is driven in part by the desire to provide high quality information and services to visitors to Grand Teton National Park as described in NPS Management Policies (2001). Access to areas for interpretive programs and views could affect the quality of the experience of park visitors. The sound of vehicles and visitor use could effect opportunities to experience natural sound in some locations. Views of the visitor center from highly traveled road corridors and trails could affect the quality of the park experience of park visitors. The short-term, local effects of construction on air quality, vehicle circulation and access to facilities may also affect visitor experience.

#### Biological Resources, including threatened or endangered species

NPS policy is to maintain all components and processes of naturally evolving park ecosystems, including the natural abundance, diversity and ecological integrity of plants and animals. Because the study area is located within or near the Snake River riparian corridor, nesting and migrating animals could be affected by a relocation of park facilities. New construction could cause vegetation and habitat degradation and disturbance.

#### Special Status Species

Bald Eagles are known to nest near the project area. Twenty-one species of special concern, designated by Wyoming Game and Fish Department, may also occur in or near the project area. The Endangered Species Act requires an examination of impacts on all federally endangered threatened or candidate species. NPS policy also requires examination of the impacts on state-listed species.

### Water Resources (Water Quality and Floodplains)

NPS policies require protection of water quality consistent with the Clean Water Act. Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting process, discharge of dredged or fill material or excavation within U.S. waters. The proposed action may have effects on water quality without mitigation.

Executive Order 11988, *Floodplain Management*, requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternative exists. Certain construction within a 100-year floodplain requires preparation of a Statement of Findings. The proposed action would place the visitor center outside of both the 100-year and 500-year (regulatory) floodplain. The administrative building is located partially within the 500-year floodplain.

### Cultural Resources

Director's Order – 28, *Cultural Resources Management*, recognizes the management of five categories of cultural resources: archeological resources, ethnographic resources, historic structures, cultural landscapes, and museum objects.

**Archeological Resources:** The National Historic Preservation Act, as amended in 1992 (16 USC 470 et seq.), the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), the National Park Service's Director's Order #28, Cultural Resource Management Guideline (1997), Management Policies, 2001 (2000), and Director's Order #12, Conservation Planning, Environmental Impact Analysis, and Decision Making (2001) require the consideration of impacts on archeological resources listed in or eligible for listing in the National Register of Historic Places. In addition, the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 USC 3001) requires specific actions when Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony are excavated or discovered on federal lands.

Grand Teton National Park encompasses a variety of archeological resources. Both prehistoric and historic resources can be found in the park. Class III Cultural Resource Inventories have identified multiple historic sites and isolated prehistoric artifacts within the affected area of the preferred alternative (Alternative D) and Alternative C. These sites have been determined ineligible for listing in the National Register by the Wyoming State Historic Preservation Office. The affected areas of Alternatives A and B are in previously disturbed areas. The affected area of Alternative E would require survey work. Therefore, archeological resources will be addressed as an impact in this document.

**Ethnographic Resources:** Ethnographic resources are defined by the National Park Service as any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (Director's Order #28, Cultural Resource Management Guideline, 191).

An ethnographic overview and assessment for Grand Teton National Park has not yet been completed. As a result, communication with tribes traditionally associated with the Jackson Hole valley will be initiated during this planning process. Therefore, ethnographic resources will be addressed as an impact until additional information is gathered.

**Historic Structures:** The National Historic Preservation Act, as amended in 1992 (16 USC 470 et seq.), the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), the National Park Service's Director's Order #28, Cultural Resource Management Guideline (1997), Management Policies, 2001 (2000), and Director's Order #12, Conservation Planning, Environmental Impact



*Analysis, and Decision Making* (2001) require the consideration of impacts on historic structures and buildings listed in or eligible for listing in the National Register of Historic Places.

Alternatives B, C, D, and E include removing the existing Moose Visitor Center. The Moose Visitor Center is a Mission 66 building and may be eligible for listing in the National Register of Historic Places. A formal determination of eligibility will need to be completed. Therefore, historic structures will be addressed as an impact in this document.

**Museum Collections:** The National Park Service's *Management Policies*, 2001 (2000) and Director's Order #28, *Cultural Resource Management Guideline* (1997) require the consideration of impacts on museum collections (historic artifacts, natural specimens, and archival and manuscript material). The current Moose Visitor Center has fifteen catalogued paintings that will be moved to the new visitor center. Therefore, museum collections will be addressed as an impact in this document.

The undertakings described in this document are also subject to Section 106 of the National Historic Preservation Act, under the terms of the 1995 programmatic agreement among the NPS, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers. This document will be submitted to the Wyoming State Historic Preservation Officer, the affiliated tribal governments, and the Advisory Council on Historic Preservation for review and comment.

#### Soil and Vegetation

Soil and vegetation would be disturbed during facility construction. Noxious weeds could be spread by construction equipment. The potential impacts are evaluated in this document.

#### Park Operations

The operation and construction of new facilities and roads could have an effect on the demand placed on sewage treatment facilities and utilities, maintenance work load (snow removal, cleaning) and budgets. Because the outcome of this analysis is generally economic in nature the effects of the alternatives on Park Operations will be discussed under Social and Economic Environment.

#### Social and Economic Environment

NEPA requires analysis of the human environment. The local economy could be temporarily affected by construction related employment and business related expenditures. Relocating the visitor facilities could have an affect on local businesses and concessionaires. The potential impacts are evaluated in this document.

#### Health and Public Safety

Moose lies within an area of high seismic activity and park visitors and employees use the visitor center and administrative facilities year round. The high rate of occupancy of the structure makes the life safety risks to occupants a primary concern

The administrative facilities in Moose are clustered within one 9-acre complex. Park maintenance facilities, park headquarters, equipment storage, and facility management for the entire park use this space. This nine acres also accommodates boat and visitor center parking and Moose housing area traffic. The convergence of so many different types of visitor, recreational, residential and road maintenance traffic is confusing for visitors and may affect the safety of vehicle operators and pedestrians alike.

Existing and proposed construction within floodplains can also affect health and safety of park visitors and employees. The analysis of floodplain issues can be found under the sections titled ***Water Resources***.

#### Adjacent Lands

When Congress established the current Grand Teton National Park in 1950, the boundary described by the legislation included private, state, county and federal lands. Currently, there are 3483 acres of non-federal land in the park. Of this non-federal land, 2103 acres are privately owned. There are 20 privately owned parcels located within a 5-mile radius of any of the site alternatives. Two parcels are undeveloped, and the rest are used for residential purposes. Private lands within the vicinity of the study area are The Murie Ranch, the 4 Lazy F Ranch and the Dornan's area. The potential impacts of the proposed action on adjacent lands are analyzed in this document.

### **Impact Topics Dismissed from Further Analysis**

#### Issues Relating to the Interior Design of Park Facilities and Interpretive Exhibits

During scoping many people voiced ideas and concerns about the design of the interior of the proposed visitor center and administrative buildings. These comments were concerned primarily with interpretive subjects and the types of uses and facilities the buildings should accommodate. While these comments are very helpful to park managers, planners and designers, they are only pertinent to the scope of this environmental assessment in how they may affect the size of the buildings. Alternatively, the size of the building will determine the scope of its contents. Council of Environmental Quality (CEQ) regulations define categorical exclusions as those actions, which do not individually or cumulatively have a significant effect on the human environment (40 CFR §1508.4). These types of actions do not require an environmental assessment or impact statement. CEQ defines the human environment to include comprehensively the natural *and* physical environment (40 CFR § 1508.14). Because the interior design of park facilities and interpretive exhibits does not have a significant effect on the human environment, comments addressing exhibits and internal building functions will not be addressed further in this document.

#### Cultural Landscapes

According to the National Park Service's *Cultural Resource Management Guideline* (DO-28), a cultural landscape is

*...a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.*

The 1999 Region-wide Level 0 Cultural Landscape Inventory did not identify any of the areas within the alternatives as potential cultural landscape. Therefore, cultural landscapes will not be addressed as an impact in this document.

#### Minority and Low Income Populations

Executive Order 12898 (Environmental Justice) requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minorities and low-income populations and communities. None of the alternatives under consideration in this

assessment would result in significant changes in the socioeconomic environment and therefore would not impact minorities or low-income populations or communities.

#### Unique Resources and Specially Designated lands

##### **Prime and Unique Agricultural Lands**

The Farmland Protection Policy Act (7 USC 4201 et seq.) and the U.S. Department of the Interior (Environmental Statement Memorandum No. ESM94-7) require an evaluation of impacts on prime or unique agricultural lands. Private agricultural land in-holdings exist within the boundaries of Grand Teton National Park (GTNP). However, there are no designated prime or unique agricultural lands within Grand Teton National Park (NRCS 2000). Therefore, none of the actions proposed in the range of alternatives would affect such lands, access to them, or their agricultural properties. Therefore, this topic is dismissed.

##### **Wetlands**

Executive Order 11990, *Protection of Wetlands*, requires federal agencies to avoid, where possible, adversely impacting wetlands. Wetlands have been identified and mapped for the project under the National Wetland Inventory program. Wetlands exist near the project area, but none are within the proposed visitor center sites or would be affected by any connected actions in this analysis. Therefore, wetlands is dismissed as an impact topic.

##### **Wilderness**

The project area does not include, and is not adjacent to, any lands in existing or recommended wilderness. Therefore, there would be no impacts.

##### **Wild and Scenic Rivers**

The project area is not within or adjacent to the identified corridor for any existing or proposed eligible wild, scenic or recreation river corridor. Therefore, there would be no impacts on them.



## **ALTERNATIVES INCLUDING THE PROPOSED ACTION**

### **Alternative Formulation**

Alternatives are defined as different ways in which existing conditions can be improved and moved toward a desired state. Alternative ways of achieving the purpose and need for action are geared toward finding solutions to the significant issues that have been identified.

The proposed action is defined as the agency's initial suggestion for meeting the purpose and need, and it is not to be confused with the designation of a preferred alternative that is based on a completed analysis. The proposed action is a starting point for alternatives formulation. A "No Action" alternative is required in the range of alternatives as a baseline for comparison of actions and effects. In this case, "No Action" describes the consequences of continuing to use the existing park visitor center and administration facilities in the future.

### **The Alternatives**

Described below are 5 alternative concepts for the location of a proposed new visitor center and associated facilities for Grand Teton National Park. Figures 2 through 6 illustrate the relative locations for Moose area facilities under each alternative. The illustrations are not to scale and the reader should be aware that the locations for the facilities in each figure are not exact. The site layouts are provided for reader convenience and to facilitate public comment.

Individual actions in alternatives are sometimes grouped by conceptual theme for analytical purposes. It is important for the reader to note that the final decision may include any of the action items from the full range of alternatives, as long as they are functionally compatible.

#### Alternative A: No Action

Implementing the no action alternative (Figure 2) would result in the continuation of existing conditions and trends in the Moose area. The existing visitor center and administrative building occupy approximately 12,500 square feet within the 9-acre headquarters and maintenance area complex. The existing parking area at the visitor center occupies approximately 2.5 acres. Individual actions include:

##### **Visitor Center and Administrative Facilities**

Continue the existing condition and all connected actions. Address safety concerns by rehabilitating the existing visitor center and administrative facilities. This would require, at a minimum, replacement of the roof and windows and reinforcement of the seismic restraint system.

##### **Parking and Pedestrian Access, Boat Launch and Parking, Moose-Wilson Road/Murie Ranch Access, Moose Village Store and Post Office.**

Make no changes and leave in current condition.

##### **Rehabilitation**

Rehabilitate ground disturbance associated with reinforcement of the seismic restraint system.

#### Alternative B: the Modified Existing Visitor Center Site

Implementing alternative B would limit the disturbance of new ground by constructing a new two-story facility on the site of the existing parking and visitor center/administration building. (Figure 3). Individual action items include:

##### **Visitor Center and Administrative Facilities**

Provide visitor services and administrative facilities in a single two-story facility of no more than 32,500 square feet.

Demolish the existing visitor center and administration building.

#### **Parking and Pedestrian Access**

To address concerns for the visual quality of the Moose area, relocate the existing visitor center parking area to the side and rear of the new facility.

To stay within the current footprint of development under this alternative, there would be no transit center (parking) in the Moose area. A transit node for busses traveling to the Teton Park Road would be provided on the west side of the visitor center. The transit center and long-term parking would be located off-site.

#### **Boat Launch and Parking, Moose-Wilson Road/Murie Ranch Access, and Moose Village Store and Post Office**

No change.

#### **Rehabilitation**

To address concerns for the visual quality of the Moose area, rehabilitate the existing visitor center parking area through the use of landscaping techniques and plantings. Ground disturbance in this alternative would be limited to the vicinity of the existing visitor center and headquarters building and parking areas. All disturbed ground would be rehabilitated.

#### Actions Common to Alternatives C-E

In alternatives C-E the visitor center would occupy approximately 25,000 square feet. The administration building would be up to 20,000 square feet in size. The existing visitor center and administration building would be demolished. The parking area would accommodate 250 cars and occupy approximately 4 acres. This area would also accommodate parking for a future transit node. A year-round bike and pedestrian pathway would be built adjacent to the road corridor from the housing area and the administrative facility to the new visitor center.

#### Alternative C: Locate the Visitor Center West of the Current Post Office

Alternative C would improve vehicle circulation and address visual quality and natural resource concerns by locating visitor services away from the Teton Park Road corridor (Figures 4a and 4b). Under Alternative C, the visitor center would be located southwest of the Moose entrance station location. Approximately 300 feet of new road would connect the new visitor center with the Teton Park Road. Individual action items include:

#### **Visitor Center**

Construct new visitor center southwest of the Moose entrance station. Demolish the existing one.

#### **Administrative Facilities**

Construct a new headquarters facility, not exceeding 25,000 square feet in size on the existing site. Demolish the existing facility.

Relocate entrance to Moose Housing Area by moving it westerly along the Teton Park Road

#### **Parking and Pedestrian Access**

To address visual quality concerns locate all administrative parking behind the new facility

Construct a four-acre parking lot adjacent to the new visitor center.

To improve pedestrian access, construct a paved sidewalk and bike path along the road corridor from the Moose housing area and administrative complex to the new visitor center and post office.

### **Boat Launch and Boat Parking**

To address concerns regarding stream bank erosion, relocate the existing boat launch. Locate the new launch downstream from the existing facility, but north of the Teton Park Road. Remove and rehabilitate the boat parking area north of the maintenance facility.

To improve circulation for visitors accessing the new boat ramp, reconfigure and sign the existing parking area to accommodate current level of use.

To stabilize the northwest streambank of the Snake River in the Moose Area use a combination of hard revetment and bioengineering from just north of the present landing site, south to the bridge. Riprap or other revetment material would be used at the toe zone (the portion of the bank that is between the average high water level and the bottom of the channel at the toe of the bank), and a combination of willow cuttings and herbaceous wetland plants utilized above. Up to four, low-profile rock barbs would be installed in the stream to help prevent future bank erosion.

### **Moose-Wilson Road/Murie Ranch Access**

To improve vehicle circulation and address resource concerns, relocate a 0.6-mile section of the Moose-Wilson Road to a previous alignment to the west (Figure 4b). The Moose-Wilson Road under this alternative would reconnect with the Teton Park Road at the intersection of The Chapel of the Transfiguration. Remove. Remove and rehabilitate the old road section.

### **Moose Village Store and Post Office**

To reduce the amount of visible development in Moose, relocate the post office to the new visitor center location and remove the Moose Village Store. Rehabilitate the existing post office and Moose Village Store area.

### **Rehabilitation**

Remove and rehabilitate north boat parking area.

Rehabilitate parking area at Moose Village Store and post office.

Rehabilitate the existing visitor center parking area.

Rehabilitate former entrance to Moose Housing Area.

To improve visual quality, plant additional native trees and shrubs on the north side of the Teton Park Road to screen the Moose housing area.

Rehabilitate all other disturbed areas and return to natural conditions.

### **Alternative D: Preferred Alternative — Locate the Visitor Center at the Woodlands Site, Southeast of the Existing Post Office**

Alternative D would address development needs at Moose Village, while limiting the amount of new ground disturbance and minimizing impacts on the landscape and visual quality. Alternative D (Figure 5 and 4b) would place the new visitor center slightly southeast of the existing post office, between the Murie Ranch access road and the Snake River. Individual actions include:

#### **Visitor Center**

Construct new visitor center southeast of existing Moose Post Office up to 25,000 square feet in size. Demolish the existing visitor center.

To improve views of the Teton Range from inside the new visitor center, selectively remove a limited number of trees.

#### **Administrative Facilities**

Construct new administrative facility to the north of existing administrative building (not to exceed 20,000 square feet). Demolish the existing facility.

### **Parking and Pedestrian Access**

To minimize the disturbance to currently undeveloped land, locate the primary parking area for the new visitor center on the north side of the Teton Park Road, approximately on the footprint of the existing visitor center parking lot. Expand from 2.5 to 4 acres. To improve visual quality, design and landscape the parking lot to provide screening and clarity for pedestrians.

To address visual quality concerns, locate administrative parking behind the new administrative facility.

To provide access to the new visitor center, construct a trail approximate 1,000 feet long, or about a 5-7 minute walk, from the main parking lot that would pass underneath the Teton Park Road.

To provide parking for disabled, winter, and administrative use, construct a parking lot for 25-30 vehicles adjacent to the visitor center.

To improve pedestrian travel, construct a spur trail to Menor's Ferry and The Chapel of the Transfiguration. Construct year round bike and pedestrian pathway adjacent to road corridor from the Moose housing area and administrative complex to new visitor center.

### **Boat Launch and Parking**

Expand and reconfigure the boat parking areas north and east of the maintenance building as shown in Figure 5. Construct a small seating area for boat passengers.

To address circulation concerns, all access to the boat launch and boat-parking area would be through the west entrance to the main parking lot/administrative area. The current access route from the east side of the main parking lot to the boat launch would be removed and rehabilitated.

### **Moose-Wilson Road/Murie Ranch Access**

To address circulation and natural resource concerns, relocate the Moose-Wilson Road to the west (same as alternative C). Rehabilitate the former section.

### **Moose Village Store and Post Office**

To maintain the current level of visitor services, provide a limited services concession store and post office adjacent to or in the new administrative building.

### **Rehabilitation**

Rehabilitate .6 mile section of Moose-Wilson Road.

Remove and rehabilitate parking lot in front of Moose Post Office and store.

Remove and rehabilitate boating access/parking from east side of current parking lot.

Rehabilitate all other disturbed areas and return to natural conditions.

### **Alternative E: Locate the Visitor Center on Southeast Side of the Snake River**

Alternative E (Figure 6) addresses future development needs in Grand Teton and the Moose Area. Under this alternative, a new visitor center would be located on the bench southeast of the Snake River. A new road would link the visitor center with the Teton Park Road near the Moose Enterprises, Inc. (doing business as Dornan's) intersection. Under this alternative the post office and the Moose Village Store would remain in their current locations. Alternative E includes the following action items:

### **Visitor Center**

Construct new visitor center up to 25,000 square feet on the east side of the Snake River.

Demolish the existing building.

To provide an additional visitor service, construct a picnic area and toilet facilities to the east of the post office and the Moose Village Store site.



**Administrative Facilities**

Construct a new administrative building, not to exceed 20,000-square feet north of the existing visitor center. Demolish the existing facility.

**Parking and Pedestrian Access**

To provide better vehicle circulation and additional area for maintenance staging, eliminate visitor parking at the north end of the maintenance area. Separate the maintenance area from the boat launch area.

Construct year round bike and pedestrian pathway adjacent to road corridor from the Moose housing area and administrative complex to new visitor center

**Boat Launch and Parking**

To accommodate the needs of river recreationists, construct an additional boat launch on the southwest side of the bridge in Moose.

To provide additional overflow boat parking, enlarge parking at the existing post office site.

**Moose-Wilson Road/Murie Ranch Access**

No change.

**Moose Village Store and Post Office**

Relocate post office to new administration building. Remove Moose Village Store.

**Rehabilitation**

Rehabilitate north boat parking area

Remove and rehabilitate some visitor parking in front of existing VC

Rehabilitate all other disturbed areas and return to natural conditions.



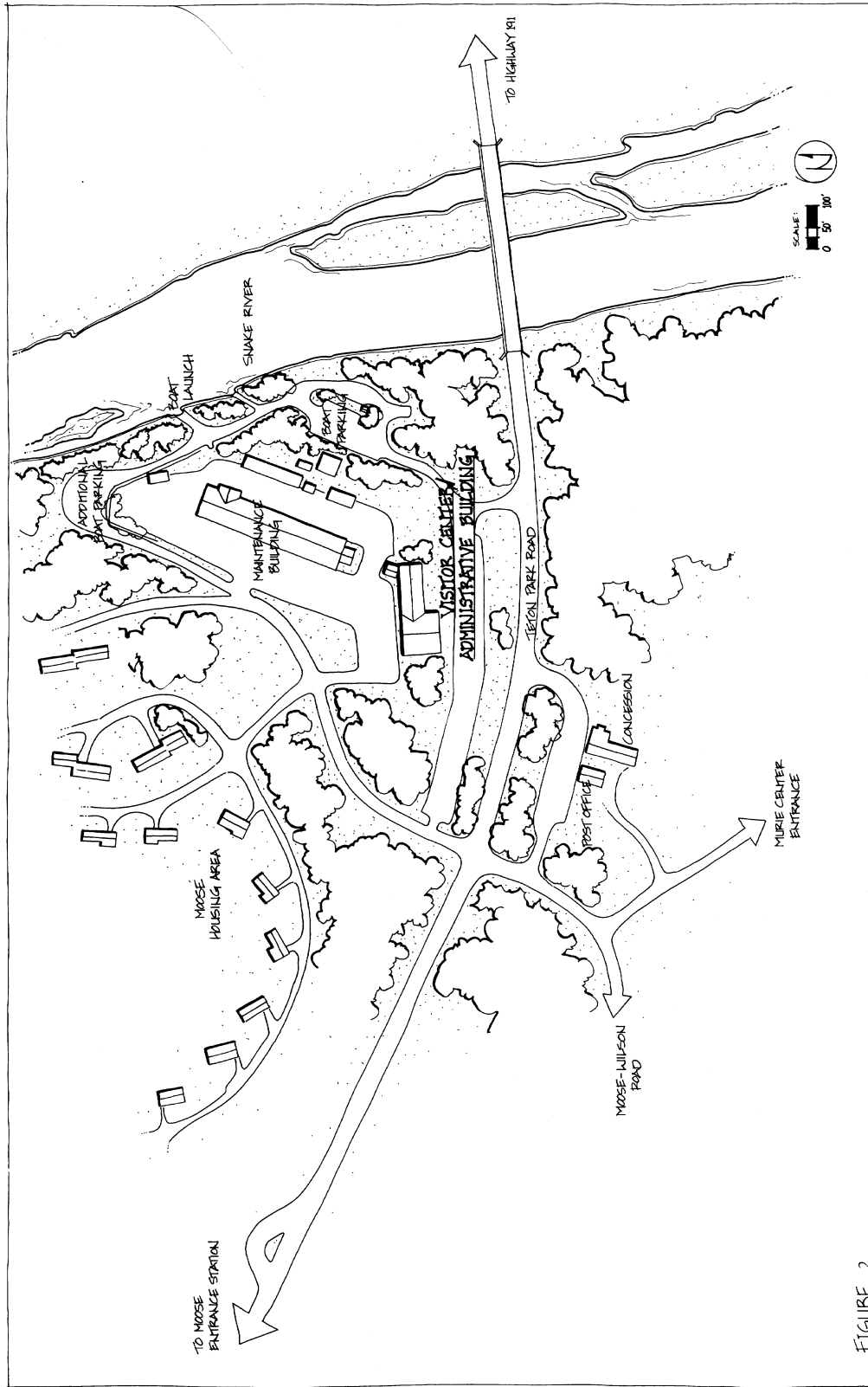
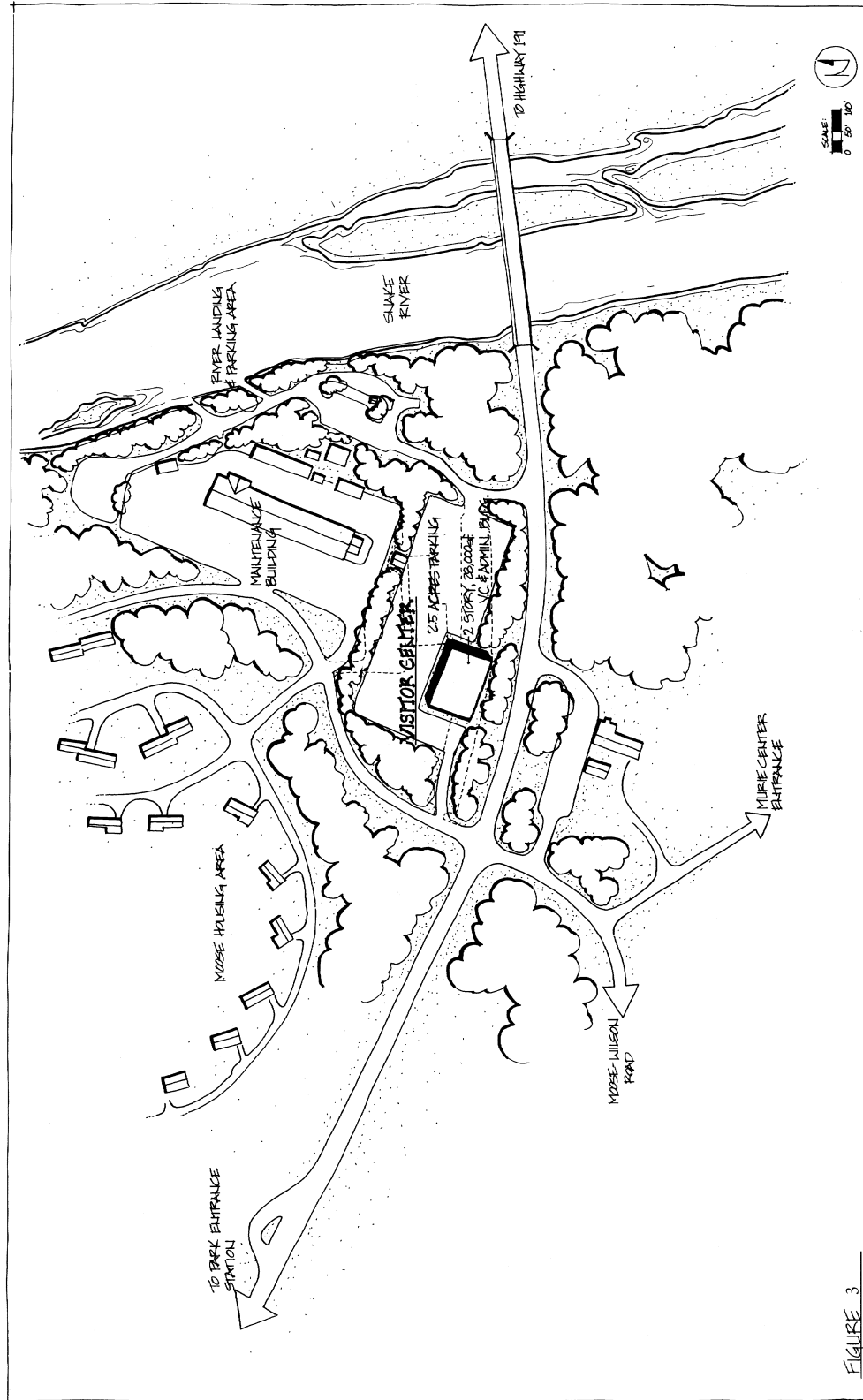


FIGURE 2

# ALTERNATIVE A - NO ACTION

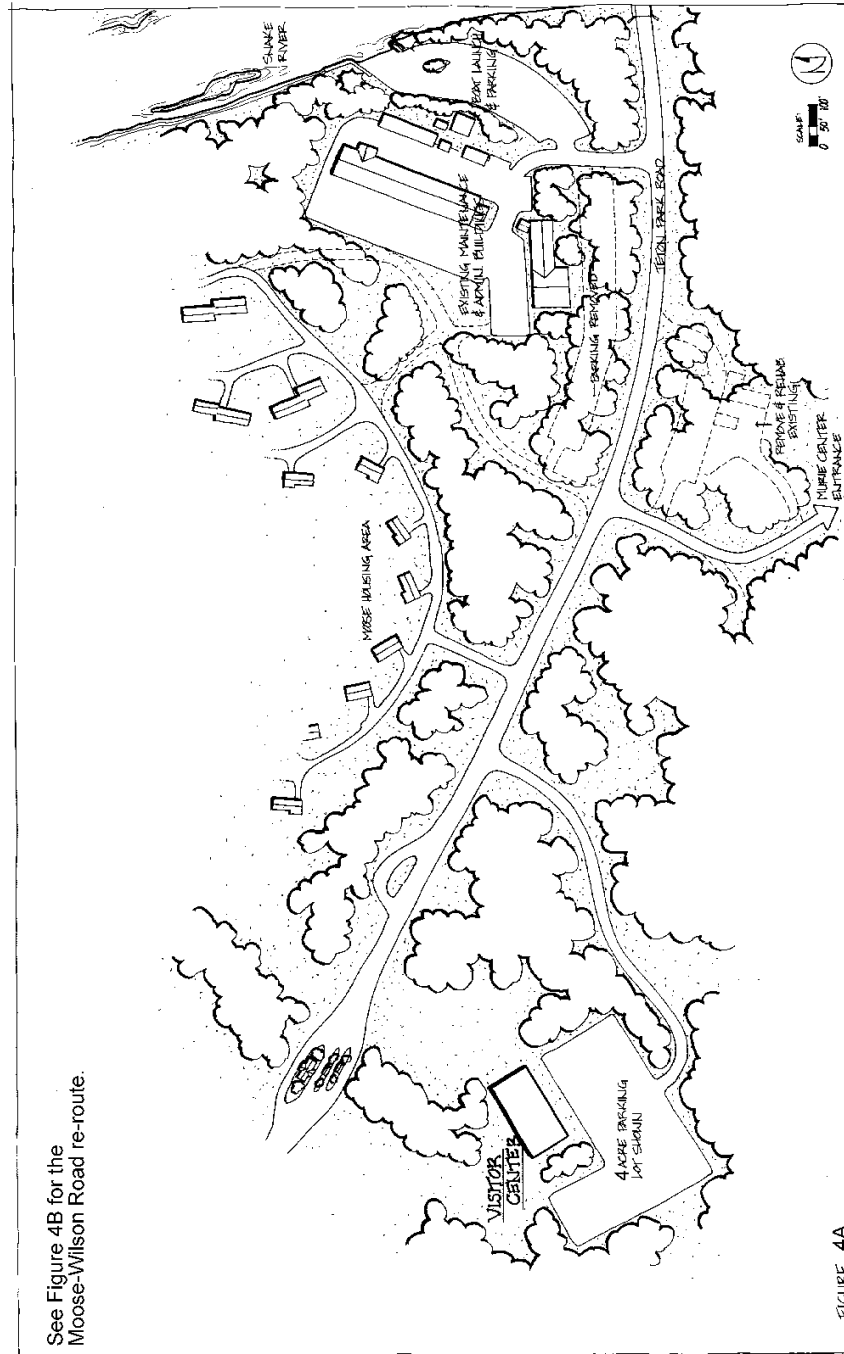




# ALTERNATIVE B - MODIFIED EXISTING CONCEPT



See Figure 4B for the  
Moose-Wilson Road re-route.



# ALTERNATIVE C - WEST OF POST OFFICE CONCEPT





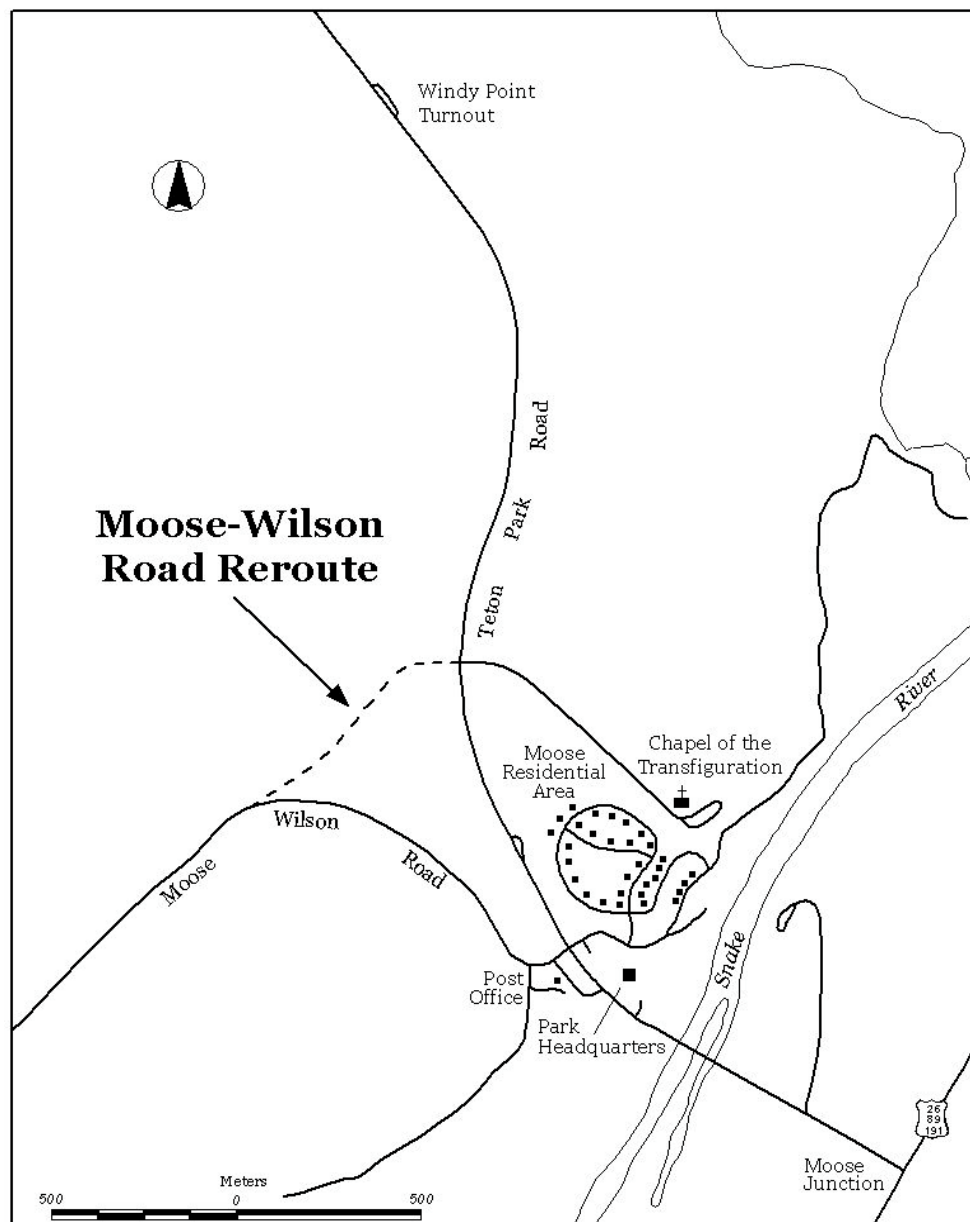
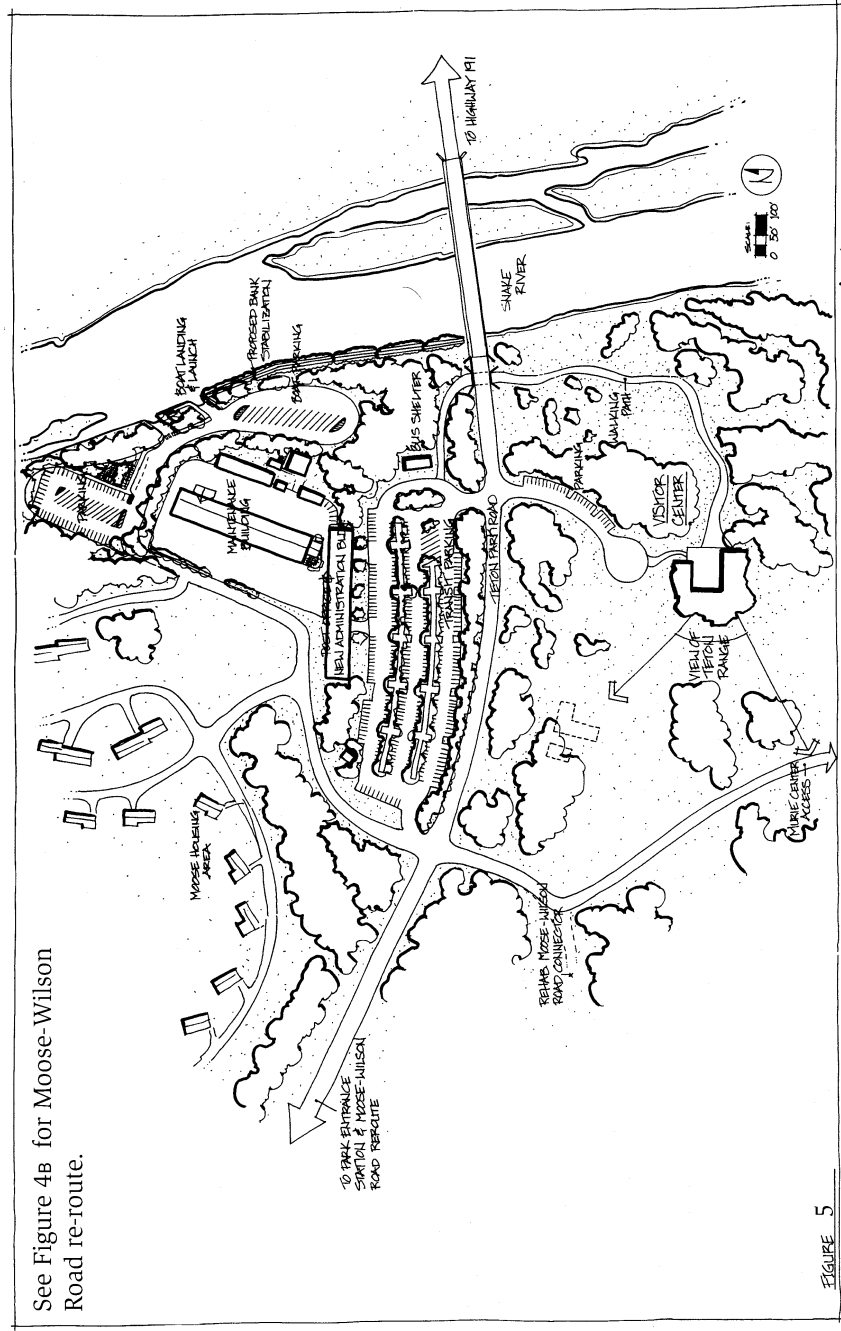


Figure 4b

**Figure 4B**



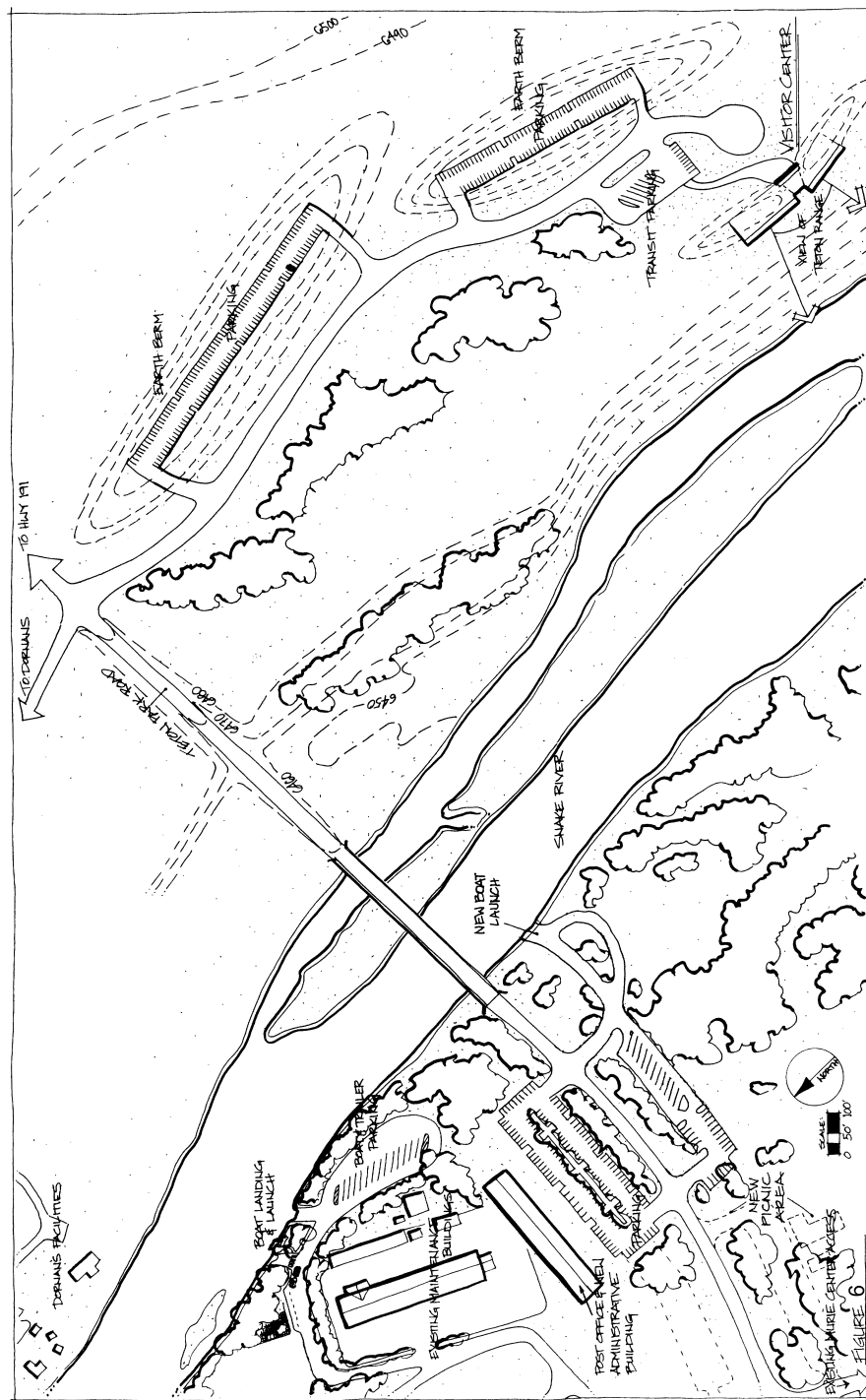


See Figure 4b for Moose-Wilson Road re-route.

FIGURE 5

# ALTERNATIVE D - WOODLANDS SITE CONCEPT





# ALTERNATIVE E - EAST SNAKE RIVER CONCEPT



## Mitigation Measures Common to all Action Alternatives

The following mitigation measures would be implemented to reduce the effects of the proposal on park resources and values.

### Natural Resources

All construction would be limited to the designated project area. No activity, including vehicle or material storage, would be allowed outside the predetermined zone.

Construction equipment would be regularly inspected and maintained to prevent fuel leaks. Responsible individuals would clean up and dispose of any leakage or spill from construction equipment such as hydraulic fluid, oil, or fuel. The handling and transportation of all hazardous material would be according to applicable federal and state regulations.

All disturbed slopes would be revegetated with native species. Additional tree plantings for screening would be utilized to blend with the existing planting pattern.

The contractor would control dust during construction by minimizing soil exposure, watering and using other dust prevention methods.

In accordance with the species of special concern plant survey conducted in 2001, measures should be taken, if possible, to protect one species of special concern: *Triteleia grandiflora* (large-flowered triteleia). The *Triteleia* was widely scattered on the sites for alternatives C and E. While localized disturbance is unlikely to remove more than a few individuals, destruction of these plants should be avoided if possible. The other species of special concern that was identified, *Sedum stenopetalum* (narrow-petaled stonecrop) was found in such abundance on the sites for alternatives C and D, that there is low probability of construction significantly affecting its occurrence in the park. Another plant survey will be conducted in June 2002 on a portion of previously unsurveyed land on the alternative D (preferred alternative) site. Appropriate mitigation strategies will be developed and followed if additional species of special concern are discovered.

If adverse changes to trails occur such as erosion or braiding, the park will improve their condition through rehabilitation and other adaptive management techniques. These techniques may include public education and interpretation, as well as the use of barriers such as fences.

All utilities would be located underground, unless otherwise approved by the park.

Topsoil would be removed from the construction sites and stored for later reclamation. It would be replaced as construction ends for the winter season, or piles would be covered for protection from snowmelt impacts.

Accepted erosion protection measures, such as sediment traps, erosion check screens/filters, jute mesh, and hydromulch would be used if necessary to prevent the loss of soil.

Reclamation work would begin immediately after construction was completed. Surface treatment would include grading to restore natural contours, conserving and replacing topsoil, seeding, and planting. Most plant materials would be from genetic stocks indigenous to the area. If native seed is used for replanting, it will be collected within the park or forest. Sterile hybrids or nonnative species may be used in highly erodable areas or where existing nonnative plant communities would out-compete any native species that were planted.

Equipment should be pressure washed before entering park, and road material from outside sources would be inspected and certified weed free to help reduce the spread of nonnative plants.

Reclaimed/rehabilitated areas would be frequently monitored to determine if efforts have been successful or if additional remedial actions are necessary. Remedial actions could include installation of erosion control material, reseeding, and/or replanting the area.

Fueling and fuel storage areas would be bermed and lined to contain spills. Provisions would be made (clay or plastic liners) for the containment and disposal of oil-soaked or contaminated soils. Construction equipment would be regularly inspected and maintained to prevent any fluid leaks.

The National Park Service would obtain federal and state environmental permits required for this project. As part of the permitting process, other agencies could require additional mitigating measures.

Construction activities will not be undertaken or continued when soils are excessively wet such that rutting would be caused by wheeled vehicles

All alternatives will implement noxious weed control measures.

Wildlife corridors and key habitat will be preserved.

Seasonal closures and public use limits for protecting bald eagles outlined in the 1986 Resource Management Plan and the 1997 Snake River Management Plan would be maintained. All trash and recycling facilities associated with the new visitor center would be of bear resistant design.

Construction on the trail or boat ramps will not start until after 10am during the breeding season of the bald eagle (February 15 through August 15).

#### Natural Soundscapes

If mass transit nodes or interchanges are implemented in the Moose area a study of the effects of the sound of busses and increased traffic would be completed for the Moose area.

Require that all NPS operated mass transit vehicles be fitted with the best available technology for reducing vehicle sound.

#### Visual Quality

##### **Architectural**

The structure shall emulate the dominant forms, colors, textures and lines found in the surrounding natural landscape.

The structure shall be designed to a minimum height, preventing the ridgeline of the structure from dominating the skyline.

##### **Site Design and Landscape**

Native plant material found in the surrounding area and landscape contouring shall be used to screen the structure and parking areas.

Natural groupings of vegetation shall be used to screen parking areas and structures

Patterns that are found in the surrounding natural landscape shall be repeated in plantings and screening.

Parking areas shall be sited amongst natural breaks in vegetation, using the structure and vegetation to screen views from roads and high visitor use areas

All previously disturbed areas which are not be built on shall be properly revegetated

The siting of the structure shall take advantage of environmental conditions such as wind direction and sun exposure.

#### Cultural Resources

If during construction, previously undiscovered archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed, if necessary, in consultation with the Wyoming State Historic Preservation Office. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001), of 1990 would be followed.



All actions that would take place in the eventual selected alternative, including mitigation, would only be implemented after sufficient consultation with, and clearance by, Wyoming State Historic Preservation Office and associated tribal governments.

An intensive archaeological survey will be required to identify possible additional sites and to determine whether these are eligible for listing in the National Register of Historic Places.

Mitigation for any site determined significant, whether newly documented or reassessed, would require consultation with the Wyoming State Historic Preservation Office and associated Native American tribal governments.

Through correspondence, the Wyoming State Historic Preservation Office has concurred with the park that the Moose Visitor Center is ineligible for listing in the National Register of Historic Places. A formal Determination of Eligibility will be completed for the current Mission 66 Visitor Center and submitted to the Wyoming State Historic Preservation Office.

Museum objects will be packaged and stored per the Museum Handbook Guidelines in anticipation of moving to the new visitor center.

#### Adjacent Lands

No visitor activities would be established that would present conflicts with The Murie Center.



Table 1. Comparative Summary of Alternatives and Extent to Which Each Alternative Meets the Project Objectives

ALT A No Action	ALT B Modified Existing	ALT C West of Post Office	ALT D Woodlands Site Preferred Alternative	ALT E East Snake River
<b>Visitor Center</b>				
Continue the existing condition and all continued actions	Provide visitor services and administrative facilities in a new two story building on the existing site	Construct new visitor center west of the existing post office (approx. 1/8 mile southeast of existing Moose Entrance Station)	Construct new visitor center southeast of existing Moose Post Office	Construct new visitor center on the east side of the Snake River (approx. 1/4 mile south of Teton Park Road and Moose Bridge area)
Address safety concerns by replacing roof and windows	Demolish the existing visitor center	Demolish the existing visitor center	Demolish the existing visitor center	Demolish the existing visitor center
Reinforce seismic restraint system			To improve views of the Teton Range from inside the new visitor center, selectively remove a limited number of trees	Construct a picnic area to the east of the post office and the Moose Village Store site; include toilet facilities
<b>Administrative Facilities</b>				
Rehabilitate to meet safety standards	Combine administrative function with visitor services on existing site	Rehabilitate building on existing site for administrative use only	Construct new administrative facility to the north of existing administrative building	Construct new administrative facility to the north of the existing building
	Demolish existing building	Demolish existing building	Demolish existing building	Demolish existing building
		Relocate entrance to Moose Housing Area by moving it westerly along the Teton Park Road		
<b>Parking and Pedestrian Access</b>				
Leave visitor and administrative parking in current condition	Relocate all visitor and administrative parking to the side and rear of the new facility (approximately 2.5 acres in size)	Construct approximately 4 acres of visitor and transit parking behind new visitor center area	Construct administrative parking lot behind the new building	Construct administrative parking behind the new administrative building
Make no changes to pedestrian access	Transit Center provided off site	Locate administrative parking behind the existing visitor center	Redevelop and expand existing visitor center parking area for transit center parking	Construct visitor and transit parking area behind new visitor center area
		Construct a year round bike and pedestrian pathway adjacent to road corridor from housing and administrative facility to new visitor center and post office	Construct pedestrian tunnel under Teton Park Road to connect parking lot with new trail on south side of road to the visitor center.	Construct a year round bike and pedestrian pathway adjacent to road corridor from housing and administrative facility to new visitor center and post office and Dorman's area
			Construct year round bike and pedestrian pathway adjacent to road corridor from housing and administrative facility to new visitor center.	
			Construct a spur trail to Menor's Ferry and The Chapel of the Transfiguration	
<b>Boat Launch and Parking</b>				
No Change	No Change	Relocate boat launch slightly downstream from existing launch site and remove north boat parking area	Expand and reconfigure the boat parking areas north and east of the maintenance building by boat launch	Construct additional boat launch on southwest side of Moose Bridge
		Reconfigure remaining boat parking area to better accommodate existing use levels	Provide all access to the boat launch/parking through west entrance to main parking lot/administrative area	Increase the size of parking area at Moose Post Office to accommodate boat parking
		Stabilize the northwest streambank of the Snake River in the Moose area through a combination of hard revetment, bioengineering, and rock barbs	Add a seating area for boat passengers	Provide physical separation between boat parking and maintenance facilities by eliminating boat parking at the north end of the maintenance area
<b>Moose-Wilson Road / Murie Ranch Access</b>				
No change	No change	Relocate .6 mile section Moose- Wilson Road so it reconnects with Teton Park Road at the intersection of The Chapel of the Transfiguration	Relocate .6 mile section Moose- Wilson Road so it reconnects with Teton Park Road at the intersection of The Chapel of the Transfiguration	No change
<b>Moose Village Store and Post Office</b>				
No change	No change	Remove Moose Village Store and relocate post office to new visitor center	Relocate post office and store adjacent to or inside of the new visitor center or administration building	Relocate post office to interior new administrative building
				Remove Moose Village Store
<b>Rehabilitation</b>				
Rehabilitate ground disturbance associated with reinforcement of the seismic restraint system	Rehabilitate ground disturbance associated with building and parking lot construction	Remove and rehabilitate north boat parking area	Rehabilitate .6 mile section of Moose- Wilson Road	Rehabilitate north boat parking area
		Rehabilitate parking area at Moose Village Store and post office	Remove and rehabilitate parking lot in front of Moose Post Office and store	Remove and rehabilitate some visitor parking in front of existing VC
		Rehabilitate the existing visitor center parking area	Remove and rehabilitate boating access/parking from east side of current parking lot	Rehabilitate all other disturbed areas and return to natural conditions

ALT A No Action	ALT B Modified Existing	ALT C West of Post Office	ALT D Woodlands Site Preferred Alternative	ALT E East Snake River
		Rehabilitate former entrance to Moose Housing Area  Plant additional trees and shrubs on the north side of the Teton Park Road to screen the Moose Housing Area  Rehabilitate all other disturbed areas and return to natural conditions	Rehabilitate all other disturbed areas and return to natural conditions	
<b>Meets Project Objectives?</b> No. Alternative A would not provide high quality park orientation and information to park visitors. It is the least sustainable and most energy consumptive alternative.	<b>Meets Project Objectives?</b> No. Although Alternative B would provide a safe and sustainable environment with a minimum of ground disturbance, it does not address issues of poor circulation and poor visitor service.	<b>Meets Project Objectives?</b> Not entirely. While Alternative C would provide high quality park orientation and information in safe surroundings, the location of the visitor center is adjacent to an area of high importance to wildlife and therefore impacts wildlife.	<b>Meets Project Objectives?</b> Yes. The new visitor center and administrative facilities would meet the visitor enjoyment, safety, sustainability and preservation objectives.	<b>Meets Project Objectives?</b> Not entirely. While Alternative E would provide high quality park orientation and information in safe surroundings, it would place development, including new boating facilities, in a currently undisturbed area that is highly visible from a major travel corridor.

Table 2. Comparative Summary of Impacts

ALT A No Action	ALT B Modified Existing	ALT C West of Post Office	ALT D Woodlands Site Preferred Alternative	ALT E East Snake River
<b>Air Quality</b>				
Short-term minor effects due to construction activities	Same as A	Same as A	Same as A	Same as A
<b>Surface and Ground Water</b>				
Short-term minor to moderate risk of construction related effects on water quality without mitigation	Same as A	Same as A	Same as A	Same as A for construction of visitor center and administration building  High, short-term risk of degrading water quality due to construction of new boat launch south of bridge
<b>Floodplains</b>				
VC/administrative building located partially within 500 year floodplain  Moderate risk to artifacts within the building if no mitigation implemented	Same as A  Full reconstruction or expansion of existing facilities would require preparation of a Statement of Findings	Minor beneficial effects because visitor center and associated artifacts would be located out of the 500 year floodplain  Other impacts are the same as A	Same as A for administrative facilities  Long-term beneficial effects from relocation of “Critical Actions” outside the regulatory floodplain, if visitor center is relocated to the west and is outside of the regulatory floodplain	Same as A for administrative facilities  Long-term beneficial effects from relocation of “Critical Actions” outside the regulatory floodplain, if visitor center is relocated to the east Snake River site and is outside of the regulatory floodplain
<b>Soils</b>				
Negligible effects from construction or reconstruction-related activities of administration building and visitor center	Short-term, minor impacts from construction related	Same as B  Rehabilitation would result in a net .9 acres improvement	Same as B for visitor center and administrative facility construction  Overall net decrease of 1.5 acres of lost soil productivity	Same as B for visitor center and administrative facility construction  Construction activities would result in a net increase of 3.5 acres of disturbed soil
<b>Vegetation</b>				
Negligible effects	Negligible effects from disturbance/removal of less than 1 acre of vegetation on previously disturbed ground	Effects of new construction would result in minor to moderate effects because of site clearing  Foot traffic associated with new visitor center would result in vegetation loss near riparian zone.  Boat launch relocation would result in removal of limited riparian vegetation causing moderate adverse impacts  Overall rehabilitation of post office site and existing visitor center parking would result in a net increase of .9 acres of natural vegetation	Same as C  Activities would result in a net decrease of 1.5 acres of disturbed native vegetation	Effects of new construction would result in minor to moderate effects because of site clearing  Overall results in a net decrease of 3.5 acres of vegetation resources
<b>Wildlife</b>				
Continued long-term negligible effects on wildlife populations	Same as A	Minor adverse short and long-term impacts on wildlife that use the Snake River corridor and adjacent upland habitat due to construction, wildlife displacement, and habitat loss	Minor adverse impacts due to construction activities and ground disturbance on an undeveloped site  Short and long-term adverse impacts at minor level from wildlife disturbance and displacement	Short- and long-term minor adverse effects overall because of new visitor center location adjacent to Snake River and loss of habitat  New VC located near crucial winter range for moose
<b>Species of Special Concern</b>				
No adverse effects	Same as A	Negligible short and long-term effects at the population level from construction and use of the proposed facilities  Minor adverse effects due to loss of sage grouse habitat	Same as C	Same as C
<b>Threatened and Endangered Species</b>				
Negligible long-term impacts on bald eagles, gray wolves, grizzly bears, and lynx from human activity within the Moose area and displacement and avoidance of the Snake River corridor	Same as A	Negligible short-term and long term effects due to construction activities and increased areas of displacement	Same as C	Short and long-term negligible adverse effects on lynx, gray wolves, and grizzly bears due to their avoidance of human developments  Minor short and long-term adverse effects on bald eagles due to a high level of disturbance and displacement from a known foraging area  Negligible adverse effect on wolves from removal of small mammal habitat
<b>Health and Safety</b>				
Moderate adverse effects because existing administration and visitor center building does not meet standards for earthquake safety  Negligible, adverse impacts on health and safety from	New building would comply with seismic standards resulting in moderate beneficial effects compared to A Floodplains and pedestrian/vehicle safety similar to A	New visitor center building would comply with seismic standards resulting in moderate beneficial effects compared to A  Moderate to minor improvements to human health and safety	Moderate beneficial impacts to visitor and employee safety from meeting of seismic standards in buildings  Floodplain and pedestrian/motor vehicle safety similar to A	Same as D

ALT A No Action	ALT B Modified Existing	ALT C West of Post Office	ALT D Woodlands Site Preferred Alternative	ALT E East Snake River
location of facilities in relation to 500-year floodplain		from reconstruction of administration building compared to A		
Minor adverse effects on visitors, residents and employees from continued parking lot accidents		Floodplain and pedestrian/motor vehicle safety similar to A		
<b>Visitor Experience, including Access and Circulation</b>				
Moderate adverse impacts from continued, poor quality of visitor service in sub-standard facility and lack of other interpretive opportunities	Negligible beneficial impact on congestion	Moderate beneficial impacts to traffic and congestion balanced with minor adverse impacts to visitors seeking or using the Moose-Wilson Road	Ease of locating facilities and accessing information would be the same as C	Moderate beneficial impacts from ease of locating the facility
Moderate adverse impacts from continued visitor inconvenience due to combined administrative, maintenance and visitor services at present facility	Short-term moderate adverse impacts on operations and GTNHA revenues due to visitor inconvenience during construction	Moderate adverse effects on visitors because of the difficulty of locating the new visitor center for visitors	Moderate beneficial impacts to visitors using the pedestrian trail and tunnel, balanced by minor negative impacts to those inconvenienced by a walk to the visitor center	Moderate beneficial impacts to congestion in Moose balanced by minor adverse impacts to congestion at Dornan's
Access/Circulation: Moderate adverse effects on park visitors and their ability to access services because of confusing pedestrian and vehicle circulation in the Moose area	Moderate improvements from opportunities to access enhanced interpretive facilities	Moderate beneficial impacts from access to other interpretive opportunities balanced by minor adverse impacts to staff of and visitors to Menor's Ferry	Moderate beneficial impacts from accessing a wide variety of habitats	Moderate improvements to quality of visitor services
	Continued moderate adverse impacts to visitor inconvenience due to combined administrative, maintenance and visitor services	Moderate beneficial impacts from keeping the old facility during construction		Minor adverse impacts to GTNHA operations and visitors and staff to Menor's Ferry
	Access/Circulation: Minor adverse effects with improvements over A due to improved design of building and parking to better direct visitors to desired services	Moderate improvements to quality of visitor services		Minor beneficial impacts from access to other interpretive opportunities
		Access/Circulation: Moderate beneficial improvements to circulation due to relocated Moose-Wilson Road and separation of visitor services from administrative functions		Moderate adverse impacts from the eventual construction of a new administrative facility
				Access/Circulation: Minor to moderate beneficial improvements due to visible location of new visitor center from highway and separation of some visitor services from administrative functions
<b>Natural Soundscapes</b> —A-Minor to moderate adverse impacts from aircraft sound. Negligible impacts from motor vehicle sound. Alt B- Same as A. Alt C-Negligible to minor improvements from lowering of aircraft sound. Impacts from motor vehicle sound would be the same as A. Alt D-Impacts from aircraft noise same as A. Minor to moderate improvements to visitor experience from locating visitor facility farther from the road and locating parking away from the road. Alt E- Moderate adverse impacts to visitors from increased aircraft noise. Negligible impacts from motor vehicle sound.				
<b>Visual Quality</b>				
Minor to moderate adverse effects on visual quality would continue to occur from the high visibility of parking areas and the Moose housing area	Minor adverse effects on visual quality because of the addition of another two story building in the Moose area	Impacts on the visual quality under alternative C are negligible. The removal of development from the road corridor would minimize the adverse effects on visual quality and the rehabilitation of the Moose-Wilson Road.	Moderate visual improvements from placement of the visitor center in a location with views of the Teton Range	Moderate adverse effects due to visibility of development from the several viewpoints
Minor improvements to visual quality from rehabilitation of the existing building			Minor benefits from redesign of visitor and administrative parking	
			Effects of the Moose-Wilson Road reroute would be similar to alternative C	
<b>Cultural Resources</b>				
No adverse effect to cultural resources.	No effect to historic structures since the existing visitor center has been determined ineligible for listing in the National Register.	Possible minor impacts or no adverse effect to archeological sites determined ineligible for listing in the National Register. Possible adverse impact or adverse effect on archeological sites determined eligible for listing in the National Register.	Same as C	Same as C
	Minor short-term impacts or no adverse effect to museum objects during the move. Minor impacts or no adverse effect to the sustainability of museum objects on exhibit due to more foot traffic in the building and environmental fluctuations.	No effect to historic structures since the existing visitor center has been determined ineligible for listing in the National Register.		
		Minor short-term impacts or no adverse effect to museum objects during the move. Minor impacts or no adverse effect to the sustainability of museum objects on exhibit due to more foot traffic in the building and environmental fluctuations.		
<b>Concessions</b>				
No effects	Same as A	Minor inconvenience to visitors and employees from the removal of the Moose Village Store and relocation of post office	Minor beneficial improvements to visitor convenience	Same as A
<b>Socioeconomics</b>				
No effects on local and regional economy, visitation and traffic patterns, or concessioners	Negligible short-term beneficial effects on local economy from construction activities	Minor to moderate adverse effects to Grand Teton Lodge Company from the removal of Moose Village Store	Negligible short-term beneficial effects on socioeconomics from construction activities	Negligible short-term beneficial effects on socioeconomics from construction activities
	Negligible adverse impacts on visitation and traffic patterns			

ALT A No Action	ALT B Modified Existing	ALT C West of Post Office	ALT D Woodlands Site Preferred Alternative	ALT E East Snake River
	No effect on concessioners			
<b>Adjacent Lands</b>				
Long-term effects from the sound and traffic level of busses and heavy equipment operating in Moose	Same as A  Also minor adverse impacts from traffic delays on Teton Park Road associated with construction activities	Short-term negligible adverse effects from delays at the entrance station associated with relocation of the Moose-Wilson Road  Minor adverse effects from the associated noise of construction activities  Negligible adverse effect to Murie Ranch from an increase in the audibility of busses.	Short-term minor adverse effects from construction delays associated with the relocation of the Moose-Wilson Road.  Short-term moderate effects on The Murie Center from noise and dust associated with construction of the new visitor center  Long-term negligible to minor effects on The Murie Center due to increased visitor activities within .6 miles of the Center.	Short-term impacts would be similar to those outlined in alternative B  Long-term impacts associated with the Murie Ranch would be similar to alternative C, due to the proposed construction of a mass-transit center, boat parking, and picnic facility at the existing post office site





## **The Environmentally Preferred Alternative**

The environmentally preferred alternative is the alternative that best meets the following criteria in the full range of national environmental policy goals as stated in §101 of the National Environmental Policy Act.

1. Fulfill the responsibility of each generation as trustee of the environment for succeeding generations;
2. Assure for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attain the widest range of beneficial uses of the environment without degradation, or other undesirable and unintended consequences;
4. Preserve important cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
5. Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative A represents the current management direction for the Moose Area. It is based upon the Grand Teton National Park Master Plan (NPS 1976) and the Teton Corridor Plan (NPS 1990). Because the existing visitor and administrative facilities are retained in alternative A with only minimal rehabilitation, it does not fully address the safety and visitor experience criteria 2 and 4. Although using the existing building would cause the least disturbance of new ground, it would fall short of criterion 3 because artifacts and artwork on display in the current visitor center would remain unprotected during flooding or earthquake events. Alternative A also fails to meet criterion 6. Of all the alternatives examined alternative A provides the least in quality visitor service and is the least sustainable and most energy consumptive alternative.

Alternative B would reconstruct a two-story building on the existing site of the visitor center and headquarters building. Because the new building would provide a safe and sustainable environment with a minimum of ground disturbance it adequately meets all the criteria listed. Alternative B does not address issues of poor circulation and poor visitor service because of combined administrative and visitor information functions and would not provide for adequate parking for a transit center. It does not meet criteria 5 and 6 as well as other alternatives analyzed.

Alternative C strives to locate facilities throughout the area away from the Teton Park Road. Like alternatives, B through E, the construction of a new safer building meets criteria 1 and 2. Because the location of the visitor center in this alternative is adjacent to an area of high importance to wildlife, it does not meet criteria 3 or 4.

Alternative D (preferred alternative) focuses on achieving a balance between natural and cultural resource disturbance and high quality visitor services. Alternative D meets all six national environmental policy goals. The new visitor center and administrative facilities would meet the safety, sustainability and preservation goals. As a result, alternative D meets criteria 3, 4, and 5 better than other the other 4 alternatives examined.

Alternative E proposes to build a visitor center in an area that is currently undisturbed and provides a wide range of visitor services in the Moose area. Because the visitor center building in this alternative would be in an area that is highly visible from a major travel corridor, this alternative does not meet criteria 2. The development of new boating facilities on the south side of the Teton Park Road would locate new facilities in a sensitive area to wildlife.

The environmentally preferred alternative is alternative D because it surpasses the other alternatives in realizing the full range of national environmental policy goals as stated in §101 of the National Environmental Policy Act. Although alternatives A and B achieve a greater protection of natural resources because they disturb less ground, alternative D provides a high level of protection of natural and cultural resources while concurrently attaining the widest range of neutral and beneficial uses of the environment. Of the alternatives examined in this document alternative D best integrates resource protection with an appropriate range of visitor uses. The preferred alternative best maintains the scenic splendor of the Teton Range and provides good opportunities for sustainable and aesthetically pleasing facilities and visitor experiences.

### **Alternatives Considered but Dismissed from Further Study**

The NPS interdisciplinary team reviewed issues raised during the public scoping process and reconsidered management needs and concerns relating to the purpose and need for action. A preliminary range of alternatives was based on these issues, needs and concerns. Alternatives that did not respond to the purpose and need for action were dismissed from further study. Below is a list of those alternatives along with the rationale for dismissal.

#### Warm Springs Site

The Development Concept Plan for the Teton Corridor Plan, Moose to Jenny Lake (NPS 1990) recommends the construction of an expanded visitor center on the current site. The plan also states that if it is determined that a larger facility is necessary in the future, the park should explore a location outside or near the park's southern boundary. The plan also states that any action, such as visitor center construction, must comply with the terms of NEPA. Actions are underway or have already been implemented that would make a new visitor center near the vicinity of Jackson Hole redundant. The Interagency visitor center, the Wildlife Museum, and the proposed Multi-Agency Campus are all located within 5 miles of the south park boundary on US Highway 191. In order to better serve visitors with on-site orientation and interpretation, it was determined that alternative locations outside the Moose area would not adequately meet the purpose and need of the project.

#### Blacktail Butte Site

The Blacktail Butte site was dismissed from further study because of a high potential for conflicts with migrating elk and moose and the high cost of utility access. Additionally, this alternative created rather than addressed issues with vehicle circulation and visual quality. Because of these conflicts, this alternative did not meet NPS policy or the project objectives and was dismissed from further consideration.

#### Northeast Snake River

The North Snake River site was dismissed from further study because the site generally created rather than solved issues with vehicle and pedestrian circulation, effects on riparian habitats, visibility from the Snake River and opportunities for quality interpretive experiences. Because this alternative does not meet the purpose for action, it has been dismissed from further consideration.